



Transplanting Success:

UT Southwestern's programs make it among the most comprehensive centers in the nation.

“IT WAS VERY SCARY looking death in its eyes, but I am still alive by the grace of God, prayers from many, and a staff that I would put up against any in the world. I can now look forward to seeing as many sunrises and sunsets as I wish. I can look forward to spending many years with the woman I love, my brothers and sisters, and the greatest parents in the world as well as my children.” — *KEN KLEINMAN*,

A FEW WEEKS AFTER A KIDNEY-LIVER TRANSPLANT AT UT SOUTHWESTERN UNIVERSITY HOSPITAL

**By Russell
Rian**

There are no ordinary stories among transplant recipients, just a common thread.

Each has a poignant tale of facing death. Each year, they celebrate living. Among them are:

- › A brother and sister who cast away sibling rivalries to become recipient and donor;
- › A mother's college roommate who stepped forward to donate an organ for her friend's baby;
- › A chef who could no longer stand long enough to cook who's now anxiously waiting to get back to his kitchen;
- › A man in need of a double transplant and repeatedly told illness of one organ disqualified him for transplant of the other; and
- › Two who share the lungs of a teen they'll never meet and who are gratefully honoring the youth by travels never before taken and by snuggling with their grandchildren.

Each is part of a close-knit family in the nationally recognized solid organ transplant programs at UT Southwestern, encompassing livers, kidneys, pancreases, hearts and lungs.

"Chronic illness takes a toll on people emotionally," said April Morgan, a social worker with the program. "Typically our patients had fulfilling careers, hobbies and other pursuits prior to transplant, and their chronic illnesses have derailed them from being able to experience these things to their fullest. After a transplant, we are able to see patients return to their jobs, spend more time with their families and resume the lives they had previously built for themselves. It is a wonderful experience to be able to provide them with relief of those stressors and see patients enjoying the things most of us take for granted."

Mr. Kleinman explains the toll it took on him this way: "I was within days of death. My family was thinking, 'Would he look better in a pinstripe or solid suit?' There was a cemetery that I wanted to be buried in, and my mom was working on trying to secure a lot there. It was grim. I was staring



"I was within days of death. My family was thinking, 'Would he look better in a pinstripe or solid suit?' It was grim."

—Ken Kleinman, patient

death in its face. I always thought I would be a lot stronger. But nope. You get death right in front of you, it's a mind trip."

Laying new groundwork

UT Southwestern's transplant doctors and their team are working in innovative ways to improve the chances of everyone who needs a transplant.

New among this year's family of survivors are nearly two dozen liver transplant patients and several multi-organ liver-kidney transplant patients, including Mr. Kleinman, thanks to the addition of liver transplants to UT Southwestern's established transplant services.

Already renowned for its Heart and Lung Transplant Program, UT Southwestern recently took another step for its patients and created a Division of Surgical Transplantation.

Dr. Juan Arenas, a highly respected multi-organ transplant surgeon, was recruited from the University of Michigan and Henry Ford Hospital to be chief of the new division and surgical director of the liver transplant program at

UT Southwestern.

He specializes in living-donor liver transplantation, laparoscopic liver surgery, donation after cardiac death and extracorporeal circulatory support.

Dr. Arenas, in turn, recruited surgeons from established programs around the nation. He now has forged a 12-member team of top physicians from surgery, nephrology and hepatology to evaluate and track patients.

"I think what attracted me and others who have joined this program is the ability to consolidate all that expertise and knowledge and translate it into clinical outcomes for real patients," said Dr. Meelie DebRoy, assistant professor of surgery and surgical director for kidney transplants.

In addition, the team can tap into the medical center's gold mine of resources in other fields such as oncology, radiology, pathology, endocrinology, psychiatry, rehabilitation or ophthalmology for

added support to handle the wide variety of potential issues that can arise in transplantation care.

"The key competence of the UT Southwestern program has really been the support we've received from the university in establishing that multidisciplinary approach," Dr. DebRoy said. "The multidisciplinary approach is key to the success of any transplant program. A lot of programs that have not been successful have really tried to follow the surgeon-heavy or medicine-heavy approach. Until there's an equal representation and equal buy-in to the process, it's very difficult to establish success."

This approach is convenient for physicians and patients alike because doctors are able to consult at will about issues that may arise, and it minimizes the number of appointments that patients, who are often extremely ill, have to attend.

"These patients see almost the entire gamut of clinical services, so transplant patients generate a lot of internal consultation and clinical service," Dr. Arenas said.

The program covers the comprehensive ongoing medical management and care needed for patients awaiting a transplant as well as the post-care and follow-up for those who have received one. In addition, inside its laboratories, UT Southwestern physicians test for the proper match and continue to evaluate what factors are at play when a transplanted organ is rejected.

The comprehensive philosophy of the program is not limited to just transplantation surgery.

"We strive to provide each of our patients with a personalized approach to treatment," said Landon Ware, administrative director of the kidney-liver-pancreas program.

UT Southwestern staffs its transplantation team with specially trained nurses for care; financial coordinators to help patients navigate insurance and find assistance; social workers who focus on patients' emotional, social and psychological well-being; and clinical coordinators to make sure it all runs smoothly and everyone is communicating with one another. Services range from pharmacists to explain the medication routines to nutritionists who assist with dietary decisions.

In all, some 50 people tackle the whirlwind of issues swirling about UT Southwestern's transplant recipients.

Ms. Morgan, the transplant social worker, said each patient receives a thorough evaluation to screen for any psychosocial contraindications to transplant surgery and to ensure that the patients have the necessary support and resources available to help them through the transplant process, including emotional support and crisis intervention for patients and families struggling to cope. The staff helps identify community resources and charitable organizations that can benefit the patients as well as alternative funding sources.

"A transplant social worker's primary focus is the patient's emotional, social and psychological well-being," Ms. Morgan said. "Everyone who works in this division does so for the gratification of seeing people improve their quality of life through a transplant."

UT Southwestern also has a mentor program to connect past and upcoming recipients, and a support group to meet the emotional needs of the patients. Housing resources are available through the Guest House for patients and their families from out of the area.

"The hospital helps you with everything from day one," said Greg Sommers, 46, who received a dual kidney-liver transplant in May 2008. "I



"I think what attracted me and others who have joined this program is the ability to consolidate all that expertise and knowledge and translate it into clinical outcomes for real patients."

—Dr. Meelie DebRoy

didn't have health insurance, and they walked me through that. Afterward, they gave me a list of contacts that help people like me. And they helped me retain my benefits, so I don't lose the care I'm getting when I get a job.

"As far as the medication to make sure the body is not rejecting it, they keep on top of it. You go in, and they take blood and make adjustments. They stay on top of all of it. They are just great."

Matchmaking goes high-tech

Behind the scenes, UT Southwestern's Division of Transplant Immunology is contributing its own expertise to the process.

The division, under the direction of Dr. Peter Stastny, provides round-the-clock service to match compatible organs and tissue and to flag potential diseases, all done through high-resolution human leukocyte antigen (HLA) matching and gene sequencing.

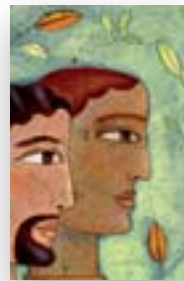
HLAs are proteins that the body uses to flag cells that don't belong. A close match reduces the risk of a recipient's immune cells attacking the new organ.

Well-matched transplants do better, require less immunosuppressive treatment and are less likely to become sensitized and develop antibodies against HLA.

Not all organs must be matched exactly. Identical blood types are the only absolute requirement for liver transplants. Even organs that don't require detailed matching still require some testing to ensure they are accepted by the recipient's immune system.

The division does testing not only for UT Southwestern University Hospital, but also for Parkland Memorial Hospital, Children's Medical Center Dallas and the Dallas Veterans Affairs Medical Center, along with a cooperative transplant program in El Paso.

The number of transplants from all the hospitals has more than doubled since 2004 and now exceeds 150 per year.



"The bottom line is that the data suggest that failure of otherwise well-matched kidneys may be caused by these antibodies."

—Dr. Peter Stastny

In addition to the tried-and-true methods, the lab is advancing beyond conventional testing with new methods that may allow researchers to predict whether a recipient will develop antibodies rejecting the transplant, said Dr. Stastny.

The division has been breaking new ground on the basic science front as well. Most recently, Dr. Stastny, collaborating with colleagues in Germany, for the first time identified antibodies associated with transplant rejection of otherwise healthy kidneys, research that appeared in *The New England Journal of Medicine*.

For years physicians have been perplexed as to why some seemingly well-matched kidneys were still rejected, and the research turned up a likely culprit – antibodies that aren't targeted by current testing methods.

"The bottom line is that the data suggest that failure of otherwise well-matched kidneys may be caused by these antibodies," Dr. Stastny said.

More research will be needed to show whether this is the sole cause, but the results offer critical direction in finding new explanations of why good transplants go bad and discovering potential new avenues for screening to prevent rejection of transplanted kidneys.



Transplant – a growing need

According to statistics from the Organ Procurement and Transplantation Network, the number of transplants nationally has increased about 11 percent since 2003, and deaths while waiting for a transplant organ have declined each year. Texas ranks third among states in the number of transplants performed. Texas surgeons performed more than 31,000 operations, accounting for about 7 percent of the national total of more than 440,000 transplants since 1988, when results were first tallied.

The waiting list for those in need of an organ, however, surpassed 100,000 for the first time in October 2008.

In 2007 there were 28,358 transplants for all organs, nearly 600 fewer than in 2006, and some 6,700 people died awaiting a transplant.

Patients awaiting kidneys and livers account for about 95 percent of everyone on waiting lists. Nearly three-quarters of those waiting for a transplant need a kidney, and about 16 percent need a liver. A pancreas is most often transplanted with a kidney, but pancreases still account for less than 2 percent of the need. Those waiting for hearts and/or lungs account for about 5 percent.

Demand for transplanted organs is not likely to diminish. Because kidney and liver diseases are associated with the growing obesity epidemic, the need for these organs is almost certain to rise.

Kidney-failure successes

"You can lose probably half, maybe two-thirds, of your kidney function and not know it, so it's very sneaky and insidious," said Dr. Christopher Lu, medical director of the kidney transplant service at UT Southwestern and the 2008 president of the Texas Transplantation Society. "The only way to know is to get a checkup and get your blood pressure checked."



"You can lose probably half, maybe two-thirds, of your kidney function and not know it, so it's very sneaky and insidious."

—Dr. Christopher Lu

Kidneys, which come in pairs, are located below the diaphragm, on either side of the spine. They remove wastes from the body, which are excreted as urine. They also help regulate blood pressure, blood volume and chemicals in the blood.

Kidney disease often progresses slowly from an asymptomatic stage, when patients feel well and do not know their kidneys are sick, to a stage when the damaged kidney causes high blood pressure, which produces swelling, difficulty breathing and heart failure. Finally, the kidneys fail completely. At or before that final stage, patients may be treated with dialysis, which involves cleansing the blood by running it through a machine.

Or, there may be a need to perform a kidney transplant. Transplants can involve one or two kidneys, but usually involve only one. The donor can be living or deceased.

"We have a large number of patients who require either dialysis or transplant to sustain life," said Dr. Lu, professor of internal medicine. "The number is growing rapidly because the most common causes of kidney disease are diabetes and hypertension. So as we have more and more people with metabolic syndrome, or obesity, who often have complications, we have more and more patients with end-stage renal disease."

Kidney transplantation is the best treatment for many patients with end-stage renal disease. Transplants are performed on only a small percentage of patients whose kidneys fail, largely because of a shortage of organs. In addition, for some patients, the risk of transplant surgery is very high due to their severe heart disease or other medical conditions. These high-risk patients, said Dr. Lu, often can survive well on dialysis if they are not suitable candidates for transplants.

"What most people don't know is that kidney patients on dialysis spend three to five hours, three times a week in dialysis. The ability to lift that burden through transplant is awesome," said social worker Ms. Morgan.

Dr. Lu said people do live longer with a kidney transplant, “but the caveats are you have to be a good candidate for surgery, and you have to comply with your medication. It’s important for people to understand that there is a choice. For most patients, if you don’t get a transplant today or tomorrow or next month, then you can live on dialysis, and life can be quite good.”

UT Southwestern is widely recognized as one of the nation’s leading clinical and research centers for treating all stages of kidney disease. The nephrology division, which treats kidney disease and is listed among the top programs in the country by *U.S. News & World Report*, has been instrumental in developing some of the leading tests, treatments and research into kidney disease. UT Southwestern nephrologists have led and participated in research initiatives funded by the National Institutes of Health and other prominent organizations. These initiatives have led to the creation of reliable diagnostic tests to determine a person’s risk for developing kidney stones, development of the world’s most prescribed medication to treat kidney stones and development of better methods of hemodialysis.

UT Southwestern’s top-tier kidney care and experience flows into the transplant arena as well. The program was among the first to use anti-lymphocyte antibodies to prevent and treat rejection, calcium channel blockers to improve early function of a kidney transplant, and molecular biology to match kidneys with patients more successfully.

UT Southwestern’s transplant surgeons have performed more than 1,700 kidney transplants since performing the first kidney transplant in Texas in the 1960s. More than 60 pancreas transplants have been done since that program started in 1989.



“Most people think of cirrhosis as being from alcohol, but there are at least 10 to 15 or more causes that are genetic or autoimmune, and all kinds of liver disease can progress to cirrhosis.”

—Dr. Anne Larson

Boosting liver transplants

“Most people think of cirrhosis as being a result of alcohol, but there are more than a dozen causes that are genetic or autoimmune. All kinds of liver disease can progress to cirrhosis. Eventually, usually eight to 10 years after development of cirrhosis, the liver has lost enough of its cell mass that it starts to fail. It simply can’t keep up with what the body needs it to do. That’s when you need a liver transplant,” said Dr. Anne Larson, associate professor of internal medicine and medical director of liver transplantation.

The liver is the body’s largest organ and is positioned just below the diaphragm atop the stomach, right kidney and intestines. The liver’s function is to separate nutrients from food and process carbohydrates, fats and proteins needed by the body. It also produces bile and helps clear toxins from the blood.

Transplanted livers are generally taken from deceased donors, although living donors can give portions of their liver in some cases.

The addition of a liver-transplant component completes UT Southwestern’s comprehensive liver-care programs, considered some of the strongest in the country, Dr. Larson said. The medical center’s collaborative approach incorporates gastroenterologists, hepatologists, radiologists, hepatobiliary surgeons and pathologists.

UT Southwestern physicians treat liver disease in conjunction with ongoing research programs, allowing them to offer patients the most advanced diagnostic evaluations and treatments available, including immunosuppres-

sant medications, advanced procedures to treat portal hypertension and ascites (complications of cirrhosis), and chemoembolization, which delivers chemotherapy to cancerous liver tumors without exposing other parts of the body to the treatment.

UT Southwestern’s addition to the select list of liver transplant programs, which also includes dual liver-kidney transplants, gives patients and referring physicians a valuable additional regional resource to which they may turn.

“If you look back over the past 10 years, the number of people on the wait list for livers has nearly doubled, but the number of transplant operations has remained fairly constant,” said Mr. Ware, the program’s administrative director. “So our program means more opportunity for these critical cases.”

Currently, about 17,000 people are approved nationally for liver transplants and waiting for donated livers to become available, according to the American Liver Foundation. In 2008 5,273 liver transplants were performed in the U.S., while more than 1,200 patients died waiting for a donated liver.

UT Southwestern has now completed about two dozen liver transplants and a few dual liver-kidney transplants. Surgeons expect eventually to be able to perform around 60 such transplants annually.

One man’s story

Kevin Young first noticed something was wrong in 1996. The Kentucky resident began gaining weight quickly, though he hadn’t changed his diet and wasn’t overeating. Nor could he work it off.

“I was cramping up all the time. My blood pressure stayed high. So I knew it was something. And then they told me my kidney was going out. I thought they could just do an operation or something. I didn’t know it was going to be life-changing. Turns out, I had a bad liver, too.

“I was on dialysis for nearly 13 years before I came here, and they finally gave me a transplant. I got a kidney for my birthday and a liver for Christmas.”

—Kevin Young, patient, with Dr. Juan Arenas



“At that time, they said my liver was not quite bad enough to get a new liver, but it was too bad for me to get a kidney, so I was stuck,” Mr. Young said.

The medication that would have been needed to keep him from rejecting his kidney would have likely affected his liver, so he was placed on dialysis, unable to even get on the waiting list. While dialysis staved off kidney failure, his liver was getting progressively worse.

Mr. Young’s liver and kidney problems seemed to be peaking just as Dr. Arenas arrived at UT Southwestern to launch the new program, a fortuitous opportunity for Mr. Young and for Dr. Arenas’ blossoming new program.

“I was on dialysis for nearly 13 years before I came here, and they finally gave me a transplant,” said Mr. Young, whose Dec. 6, 2007, operation coincided with his birthday. “I got a kidney for my birthday and a liver for Christmas.”

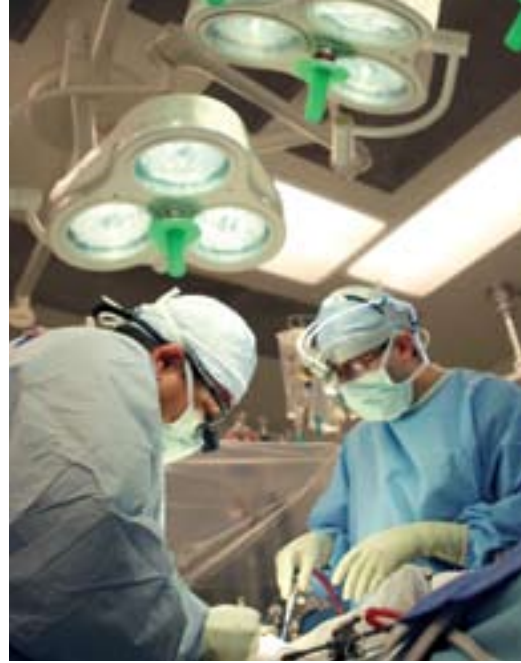
The future

The successful addition of liver transplants rounds out UT Southwestern’s nationally recognized and repeatedly honored transplant program, which is among the most select and comprehensive in the nation with transplants for all major organs – heart, lung, kidney, pancreas and liver – along with bone marrow, corneas, skin and bone transplants. In addition, the medical center operates a regional tissue bank.

Dr. Arenas, who was recently named one of the top transplant surgeons in *D Magazine’s Best Doctors Guide*, and his team continue to acquire honors for the program.

He performed the area’s first robotically assisted kidney removal from a donor. Robotic laparoscopy offers more precision for surgeons and helps diminish recovery time for donors.

Dr. Juan Arenas, who was recently named one of the top transplant surgeons in *D Magazine's Best Doctors Guide*, and his team continue to acquire honors for the program.



Dr. Arenas, Dr. DeRoy and the team also performed the area's first liver transplant from a donor who died from heart disease. Most deceased donor transplants result from brain-death cases, so the addition of obtaining livers from donors after cardiac death can increase the supply of needed organs.

Improving organ donations is among the immediate goals and priorities of the division, which has already made notable strides toward this objective.

The program received the Department of Health and Human Services' Medal of Honor for Organ Donation for achieving and sustaining a donation rate of 75 percent or more of eligible donors. The Southwest Transplant Alliance also recently recognized UT Southwestern University Hospital for its donor rate.

UT Southwestern's program is a participant in the "daisy chain" for kidney donors, in which willing donors who don't match their friend or family member join the chain, offering their organ to another in the chain who is a match. The recently launched system has potential to further extend the reach and opportunities for those willing to make the sacrifice.

Eventually, physicians in the program hope to gain new insights on transplant longevity from tracking the progress of their patients through the various stages of care before, during and after transplantation.

In addition, transplant officials hope to extend their reach in Texas and beyond through cooperative transplant programs, particularly in areas where transplant surgery is not available, but pre- and postoperative care would be.

UT Southwestern has already paired with Sierra Medical Center Transplant Clinic in El Paso to provide kidney transplants to patients in that region, which currently has no facilities for performing transplants. Kidney transplant patients receive medical care by Sierra Medical Center nephrologists before and after transplant surgery, while UT Southwestern doctors perform the surgeries in Dallas. Officials hope to forge similar agreements with other outlying areas.

The future for the new transplant services means helping more patients facing disabling illnesses or even death, like Mr. Kleinman.

When Mr. Kleinman's health started to deteriorate about five years ago, he was able to treat the problems he faced with pharmaceuticals only briefly.

"I think my body just started to give up on the pharmaceuticals, and, at that point, everything went haywire," he said. It was quite a bumpy road. The days I felt halfway decent, I still couldn't get up and do anything. I couldn't make it up a flight of stairs because it felt like I was climbing a mountain."

Then it got worse.

At one point, he was hospitalized for 63 straight days, watching ambulances and helicopters come in daily, wondering whether one carried the organs he needed.

Then he received a transplant at UT Southwestern.

"For me to have a liver, somebody had to die. And that donor's family doesn't have that person any more. I have tremendous respect for that person, for their family and for what they were able to do for me. I could never begin to repay that," he said with tears in his eyes.

"I get to live my life. Since the surgery, these people have been angels that I can't even describe. It's been a miracle from day one.

"I think about it every day. I assure you that the sky is bluer; the moon is brighter; the grass is greener. It truly is." *

For more information about UT Southwestern's transplant program, please call 214-645-1919.



Tissues heal lives, restore sight & function

THE WORD "TRANSPLANT" usually conjures dramatic images of a struggle between life and death

and the arduous wait for an organ that's a perfect match. > But solid organs aren't the only types

**By
Connie
Piloto**

of transplants saving and improving lives. Tissue transplants, performed more frequently than

organ transplants, are quietly restoring the quality of life for thousands of people every day. > A

tiny piece of corneal tissue can restore sight; a valve can jump start a heart; and a little more

than a sliver of skin can heal the wounds of a burn victim. > At UT Southwestern, the Transplant

Services Center has been providing second chances for patients for more than three decades.

"Skin grafts may literally save lives. And other tissues that we provide – such as bones and corneas – enhance the quality of life caused by many illnesses and traumas for so many patients," said Ellen Heck, director of UT Southwestern's

"Skin grafts may literally save lives. And other tissues that we provide – such as bones and corneas – enhance the quality of life caused by many illnesses and traumas for so many patients."

— ELLEN HECK

Transplant Services Center.

"Tissue transplants are truly life-enhancing."

Organ transplants often get more attention because of the critical shortage compared to the great demand, but some tissues also are in short supply – including skin and corneas.

One of the differences between organ and tissue donation is that far more people are eligible to donate tissues than organs because tissues do not have to be collected immediately after a donor's death and can be harvested outside a hospital setting, Ms. Heck said.



Located in the northwest corner of the UT Southwestern campus, the Transplant Services Center procures, processes, stores and distributes tissue grafts for hospitals and physicians throughout Texas as well as across the nation.

In addition to skin, the center stores corneas, tendons for knee surgeries and heart valves, as well as bone grafts that include bone



processed into chips and paste for multiple orthopaedic surgeries.

Since its inception in 1972, the center has supplied more than 200,000 grafts for transplantation, including corneas, skin, musculoskeletal and cardiovascular valves and vessels. Today, the Transplant Services Center supplies tissues to more than 170 hospitals and surgery centers in North Texas.

“The tissue bank is essential for research and for patient care,” said Dr. Dwight Cavanagh, associate dean for clinical affairs at UT Southwestern, vice chairman of ophthalmology and holder of the Dr. W. Maxwell Thomas Chair in Ophthalmology. “Our cornea bank does great work. We also provide bone for hundreds of orthopaedic procedures, and we preserve heart valves to be used for children with heart defects. Perhaps it’s not as glamorous as a heart transplant, but what we’re doing is allowing someone to get their sight back or to live through a major burn or to get their heart repaired. The work is critical.”

The Transplant Services Center, Dr. Cavanagh said, is a UT Southwestern success story, and many of the developments of tissue banking around the country were developed here first. Initially created by renowned UT Southwestern burn specialist Dr. Charles Baxter as a repository for human skin at Parkland Memorial Hospital, the Transplant Services Center was founded when the skin bank and UT Southwestern were asked to provide services for the Lions Club Eye Bank in Dallas.

Considered one of the pioneering tissue banks in the country, the Transplant Services Center was for years the only civilian tissue bank supplying skin to treat burn patients in other states.

“In the modern care of a burn patient, the transplantation of skin, which we call homograft – or from another person – is vital,” said Dr. Gary Purdue, professor of burn/trauma/critical care at UT Southwestern and a nationally recognized burn surgeon. “For small burns we don’t use a lot of it, but for large burns it’s absolutely necessary.”

Dr. Purdue says that one of the advantages of being associated with the Transplant Services Center is the ability to access skin that has not been frozen previously, which has proved to provide better outcomes for patients.

“One of the most important factors in the survival of patients with big burns is the ability of a hospital or physician to have a cooperative relationship with a skin bank, in this case the Transplant Services Center,” Dr. Purdue said.

Often, the Transplant Services Center is called upon to aid burn centers located outside the United States, although reserves are always kept to provide for local patients. And when a major disaster strikes, it is often the first to be contacted.

Hours after the Sept. 11, 2001, terrorist attack on the Pentagon, two Transplant Services Center employees drove across the country (because air traffic was suspended) to provide 70 square feet of skin for burn victims being treated at the Washington Hospital Burn Center.

More recently and closer to home, the center has supplied skin and other tissues to Brooke Army Medical Center in San Antonio for injured soldiers.

Tissue to heal a life

Firefighter Chase Frost, 22, who suffered burns over 60 percent of his body during a fire near Philadelphia in the summer of 2007, said human skin from donors saved his life.

The Colleyville resident was attending Widener University in Chester, Pa., while also working as a firefighter, when a roof collapsed as he and another firefighter were battling a blaze inside a row house.

Mr. Frost was eventually transferred to Parkland’s burn unit in hopes that UT Southwestern burn specialists could save larger portions of his left arm and his right leg before amputation. He also wanted to be closer to his family while he recuperated.

Sitting on a table in the rehabilitation room at UT Southwestern University Hospital, Mr. Frost was learning how to use a prosthetic leg



specifically designed for running, and practicing motions with his robotic hand.

“Doctors grafted artificial as well as human skin throughout most of my body,” said Mr. Frost, who today is planning to return to college, where he was seeking a nursing degree as an Army cadet. “Had people not made skin donations, my wounds would have been exposed, and my risk for infection would have increased. Basically, I would not have survived.”

Regaining a life and giving back

For Barbara Daniels, the cornea transplants she received in both her eyes have allowed her to regain the life she once knew.

As her vision deteriorated, Mrs. Daniels, 75, struggled to accomplish her daily routine. She couldn’t drive. An avid reader, she couldn’t make out the letters on a page or work on a crossword or jigsaw puzzle.

Mrs. Daniels was a bit apprehensive about surgery, so she first only allowed doctors to perform a cornea transplant on her right eye.

“Doctors grafted artificial as well as human skin throughout most of my body. Had people not made skin donations, my wounds would have been exposed, and my risk for infection would have increased. Basically, I would not have survived.”

— CHASE FROST

Then, she had a transplant on her left eye a year later.

Now, three years after surgery, Mrs. Daniels is ecstatic about the results. She enjoys doing artwork, crocheting and is reading – a lot.

“My quality of life has improved tremendously,” said Mrs. Daniels, who lives in Greenville and helps take care of her four grandchildren and one great-grandchild. “Everything I could do before I lost my sight, I can do now.”

Mrs. Daniels and her family say they are thankful to the donors whose gifts allowed her sight to be restored. Recently, they did their part to repay those gifts.

When Mrs. Daniels’ son-in-law, Ron Helvey, was killed in an accident, his family donated his organs and tissues.

“He had been with me through both eye surgeries,” said Mrs. Daniels, who called it “his way of giving back.” *

For more information about tissue donation, contact the Transplant Services Center at 214-648-2609.

“What we’re doing is allowing someone to get their sight back or to live through a major burn or to get their heart repaired. The work is critical.”

— DR. DWIGHT CAVANAGH